

(The non-existence of) secondary stress in Hungarian

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- ▶ **our claim: there is no such pattern in Hungarian**



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Structure of this talk

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- ▶ further research and conclusions



Secondary stress in Hungarian

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 - 4 odd non-initial syllable of a non-compound stressed for metrical reasons
- ▶ only the 4th, phonological type is relevant here



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- ▶ Examples: ['kɒtɒl,itsiz,muʃ], ['fɛlɛ,kɛzɛ,tijɛ,ke:]
- ▶ this claim has been replicated without verification in the OT literature (cf. Kager 1995 and many others)



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- ▶ ['fe:lɛ↓mɛɛ,tɛid], ['kiʃkɛn↓fe:lɛʃ,ha:za:↓bɒn],
['ɛlka:↓pɒsta:ʃi:tɒt:↓ɒlɒ,nɪ:tɒt:↓a:tɒk]



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- ▶ alternating secondary stresses follow regularly afterwards: ['fɛlɛkɛ, zɛti, jɛkɛ:]
- ▶ makes different predictions from the standard view for words in which the third syllable is light



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- ▶ however, an even later, optional deletion rule can eliminate any secondary stress
- ▶ so how do we know there was secondary stress there in the first place?



“[...] azt fejezi ki, hogy a beszélő a mondat tartalmát magától értetődőnek (nyilvánvalónak, természetesnek, könnyen kitalálhatónak stb.) tartja. A dallamsorozat egyúttal a beszélő intellektuális vagy hivatali fölényét is érzékelteti, és így egyszerre leereszkedő és kategorikus attitűdöt is kifejezhet, de nem barátságos.”

[... it expresses the fact that the speaker considers the content of the sentence to be self-evident (obvious, natural, predictable, etc.). At the same time, this melody conveys the intellectual or official superiority of the speaker, therefore it can simultaneously express a patronising and categorical attitude, but it is not unfriendly.]



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- ▶ high can only associate to a syllable bearing secondary stress



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- ▶ ‘Patronising’ intonation (grammatical):

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Varga (2000): experimental setup

- ▶ recordings of 4 sentences with the ‘paternalising’ intonation pattern, each sentence had variants with differing intonation placement



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- ▶ the neutral intonation pattern was *not* presented



- ▶ of the 4 sentences, 3 showed a statistically significant preference for attaching H to the 3rd syllable



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- ▶ in the longest sentence, H could attach to either the 5th or the 6th syllable
- ▶ Varga's explanation: some speakers use the Szinnyei-type dialect



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- ▶ if there were Szinnyei-type speakers among the participants, why didn't this pattern show up in the other 2 relevant sentences?
- ▶ if speakers are assumed to be able to choose a different stress algorithm for different sentences, then the claim about the intonation pattern being sensitive to secondary stress is unfalsifiable
- ▶ still no convincing phonological argument for secondary stress



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- 1 list of sentences compiled specifically for measuring stress



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 - ▶ 3 repetitions, no instructions regarding register



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 - ▶ vowel duration is only influenced by the lexical length contrast and local factors like following sonorants
 - ▶ F0 is determined by the information structure of the sentence (cf. Varga 2002)
- ▶ following Varga, we assume **vowel intensity is the main cue for hypothetical secondary stress in Hungarian.**



- ▶ using Praat and R



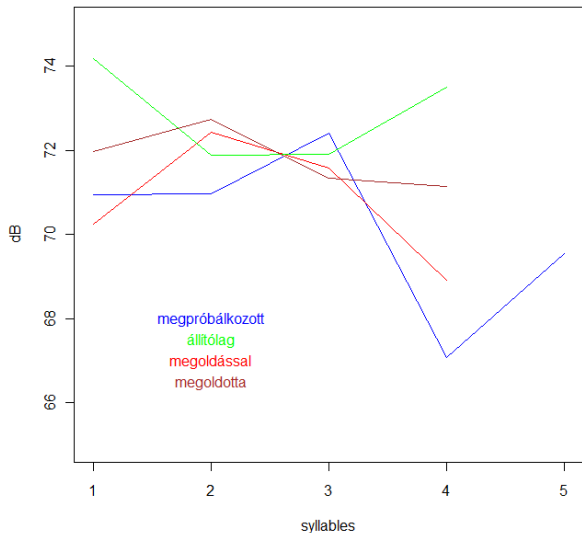
- ▶ using Praat and R
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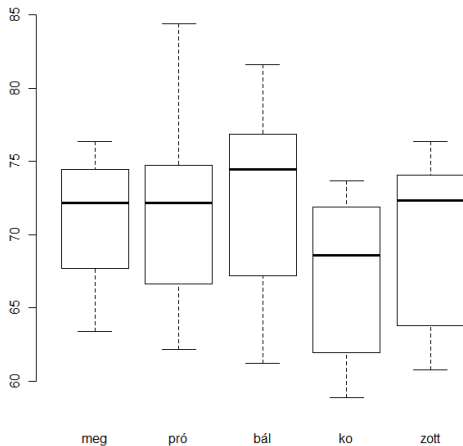


- ▶ using Praat and R
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- ▶ comparison of neighbouring syllables using paired t -tests



Words with heavy 3rd syllable



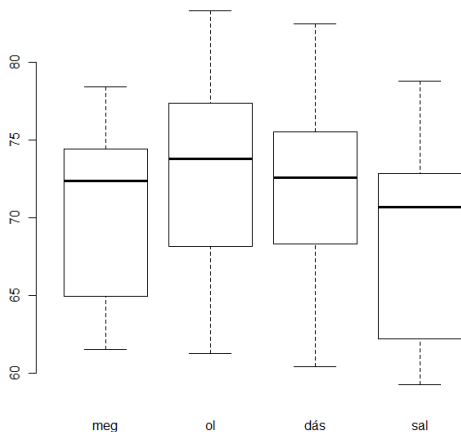


significant:

2<3

3>4





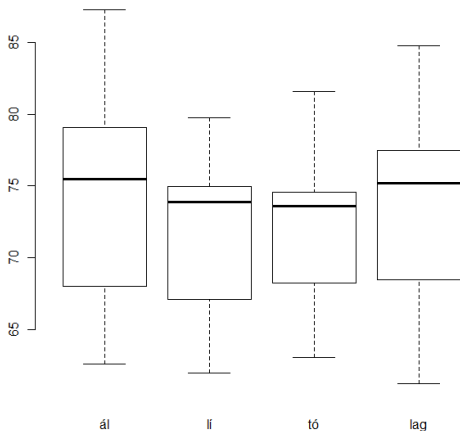
significant:

1 < 2

2 > 3

3 > 4



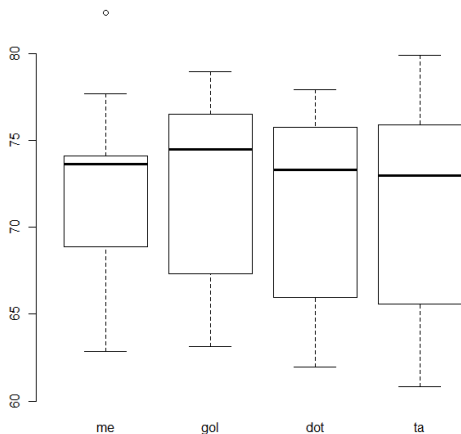


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1>2

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Interim summary: 3rd syllable heavy

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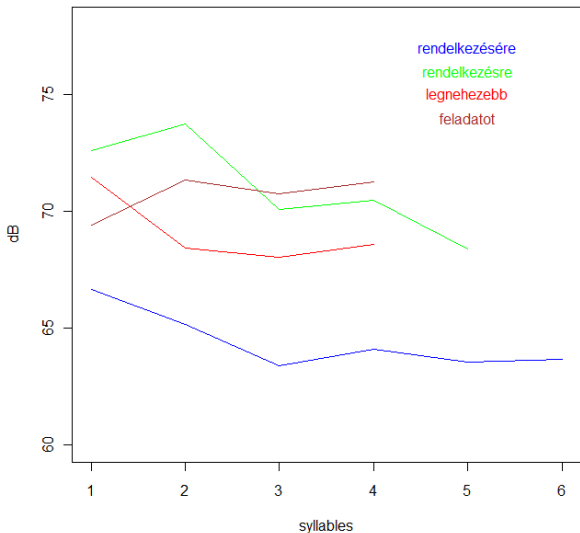


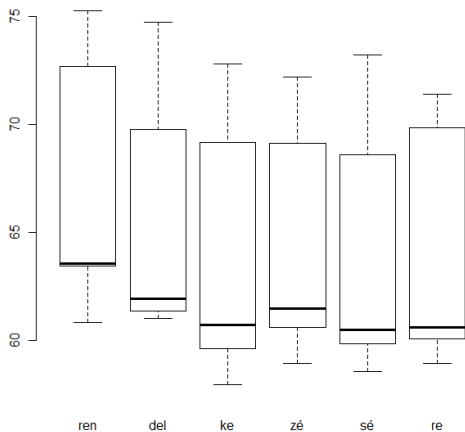
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- ▶ all other words contradict this



Words with light 3rd syllable



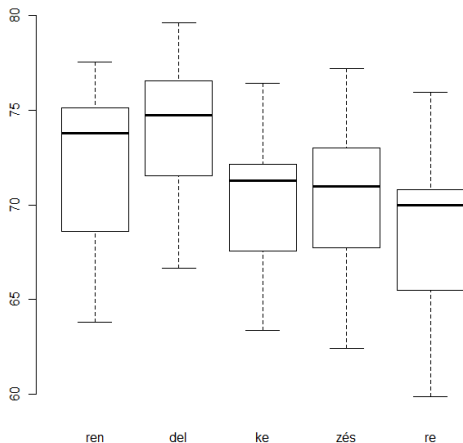


significant:

1>2

2>3



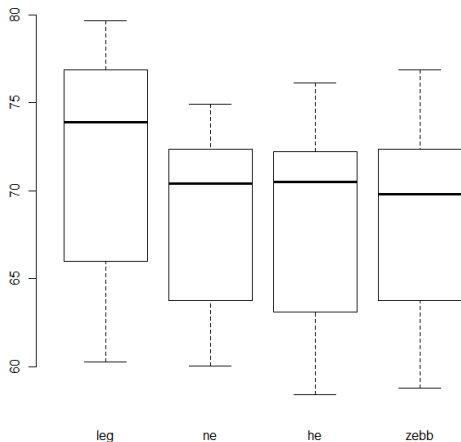


significant:

1 < 2

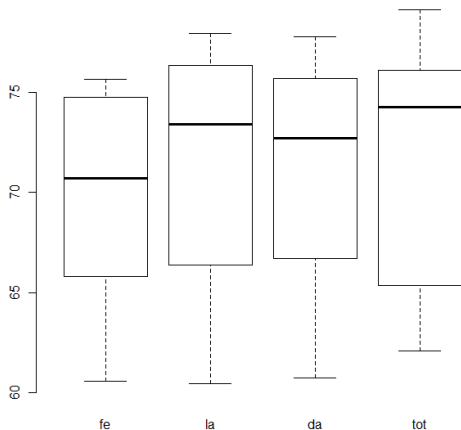
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$p \approx 0.05$



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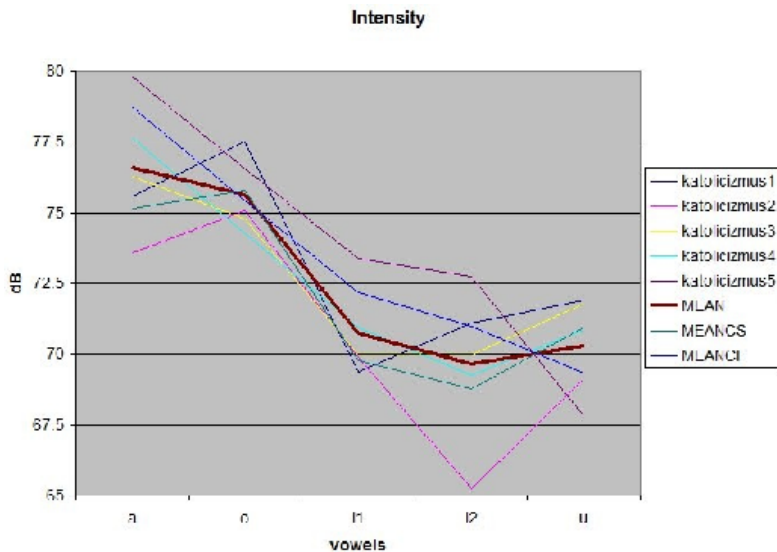
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- ▶ prediction: significant increase of intensity on the 4th syllable
- ▶ borderline significance found only for [fɛlɒdɒtɒt]; however, phrasal melody interferes here
- ▶ all other words show non-significant increase



Steady intensity decrease *contra* Szinnyeı



- ▶ intensity does not correlate with syllable weight



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- ▶ eliminating influences of clause structure, there is no consistent and statistically significant intensity increase that could be indicative of secondary stress (same is true for F0 and length)



- ▶ intensity does not correlate with syllable weight
- ▶ eliminating influences of clause structure, there is no consistent and statistically significant intensity increase that could be indicative of secondary stress (same is true for F0 and length)
- ▶ if there is a slight increase of intensity, its place is usually where Szinnyei predicts it.



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- ▶ tentative pattern: verbs with prefixes show stress clash: 2nd syllable shows equal or higher intensity than 1st (*contra* Varga)
- ▶ Varga (2000) reinterpreting Gráf (1998): another possible phonological effect of secondary stress: optional lenition of [b], [d], [g] (cf. Siptár 1995) blocked if followed by a vowel with secondary stress – doesn't seem to hold



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- ▶ Arantes & Barbosa (2008): similar claims on the non-existence Brazilian Portuguese secondary stress
- ▶ anecdotal indications for Catalan, European Portuguese and Finnish



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- ▶ impressionistic descriptions of “clearly audible” phenomena have been falsified (cf. Ernestus & Baayen on final devoicing in Dutch, and many others)
- ▶ **solid fieldwork is indispensable even for theoreticians**



Thank you!



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